

ABSTRACT

A method of driving a dual-gated MOSFET having a Miller capacitance between the MOSFET gate and drain includes preparing the MOSFET to switch from a blocking mode to a conduction mode by applying to the MOSFET shielding gate a first voltage signal having a first voltage level. The first voltage level is selected to charge the Miller capacitance and
5 thereby reduce switching losses. A second voltage signal is applied to the switching gate to switch the MOSFET from the blocking to the conduction mode. The first voltage signal is then changed to a level selected to reduce the conduction mode drain-to-source resistance and thereby reduce conduction losses. The first voltage signal is returned to the first voltage level to prepare the MOSFET for being switched from the conduction mode to the blocking mode.